

Application No. 10/588363
Response to the Office Action dated February 1, 2010 }

Amendments to the Claims:

This listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims:

1. (Currently Amended) A structure, comprising:
a transparent material; and
a cured product provided on the transparent material and formed from a curable composition that comprises:
a vinyl polymer (I) having a main chain that is a product of living radical polymerization and containing at least one crosslinkable silyl group, and
an antioxidant (II); and
a layer having photocatalytic activity-based antistaining properties provided on a surface of the transparent material.
2. (Previously Presented) The structure according to Claim 1,
wherein the transparent material is selected from a building material, a construction material, a civil engineering material, a transportation material, or a material for automobiles.
3. (Previously Presented) The structure according to Claim 2,
wherein the transparent material is glass, a polycarbonate, or a (meth)acrylic resin.
4. (Cancelled)
5. (Currently Amended) The structure according to Claim [[4]]1,

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wherein the layer having photocatalytic activity-based antistaining properties provided on the surface of the transparent material is a layer comprising a material having photocatalytic activity and further comprising a hydrophilic material.

6. (Previously Presented) The structure according to Claim 1,
wherein the antioxidant (II) is a hindered phenol compound.
7. (Previously Presented) The structure according Claim 1,
wherein the curable composition further comprises a plasticizer (III).
8. (Previously Presented) The structure according to Claim 7,
wherein the plasticizer (III) is a phthalic ester.
9. (Previously Presented) The structure according to Claim 7,
wherein the plasticizer (III) is a polyoxyalkylene polymer.
10. (Previously Presented) The structure Claim 1,
wherein the vinyl polymer (I) has a molecular weight distribution of less than 1.8.
11. (Previously Presented) The structure according to Claim 1,
wherein the main chain of the vinyl polymer (I) comprises a polymer of a vinyl monomer at least one selected from the group consisting of (meth)acrylic monomers, acrylonitrile monomers, aromatic vinyl monomers, fluorine-containing vinyl monomers and siliconcontaining vinyl monomers as a major component.
12. (Previously Presented) The structure according to Claim 11,
wherein the main chain of the vinyl polymer (I) is a (meth)acrylic polymer.
13. (Previously Presented) The structure according to Claim 1,
wherein the main chain of the vinyl polymer (I) is an acrylic polymer.

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14. (Previously Presented) The structure according to Claim 13,
wherein the main chain of the vinyl polymer (1) is an acrylic ester polymer.
15. (Previously Presented) The structure according to Claim 1,
wherein the product of living radical polymerization as the main chain of the vinyl polymer (I) is a product of atom transfer radical polymerization.
16. (Previously Presented) The structure according to Claim 15,
wherein the product of atom transfer radical polymerization is obtained in a presence of a transition metal complex catalyst comprising at least one element selected from the group consisting of a VII, VIII, IX, X, or XI group element in the periodic table as a central metal.
17. (Previously Presented) The structure according to Claim 16,
wherein the transition metal complex catalyst is a complex having copper, nickel, ruthenium, or iron as a central metal.
18. (Previously Presented) The structure according to Claim 17,
wherein the transition metal complex catalyst is a complex of copper.
19. (Currently Amended) The structure according to Claim 1,
wherein the crosslinkable silyl group of the vinyl polymer (I) is represented by a following general formula 1:
$$-[\text{Si}(\text{R}^{10})_{2-b}(\text{Y})_b\text{O}]_i-\text{Si}(\text{R}^{11})_{3-a}(\text{Y})_a \quad (1),$$

wherein R^{10} and R^{11} are the same or different, and each of R^{10} and R^{11} is independently an alkyl group containing 1 to 20 carbon atoms, an aryl group containing 6 to 20 carbon atoms, an aralkyl group containing 7 to 20 carbon atoms, or a triorganosiloxy group represented by $(\text{R}')_3\text{SiO}-$ (in which R' represents a univalent hydrocarbon group containing 1 to 20 carbon atoms and the three R' groups may be the same or different) and, when there are two or more R^{10} or R^{11} groups, they may be the same or different; Y represents a hydroxyl group or a hydrolyzable group, and when there

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are two or more Y groups, they may be the same or different, a represents ~~1, 2, 1, 2,~~ or 3, b represents 0, 1, or 2, and I represents an integer of 0 to 19, provided that a relation

$$a + Ib \geq 1$$

should be satisfied.

20. (Previously Presented) The structure according to Claim 1,
wherein the crosslinkable silyl group of the vinyl polymer (I) is located at a terminus of the main chain.

21. (Previously Presented) The structure according to Claim 1,
wherein the curable composition further comprises a polyoxyalkylene polymer (IV) comprising at least one crosslinkable silyl group in an amount in a range of 0.1 to 1,000 parts by weight per 100 parts by weight of the vinyl polymer (I).

22. (Previously Presented) The structure according to Claim 1,
wherein the curable composition further comprises a polymer (V), which contains a crosslinkable silyl group, as a product of a radical polymerization technique, which is different from the living radical polymerization, in an amount within a range of 3 to 300 parts by weight per 100 parts by weight of the vinyl polymer (I).

23. (Previously Presented) The structure according to Claim 1,
wherein the curable composition further comprises 0.1 to 20 parts by weight of a tin curing catalyst (VI) per 100 parts by weight of the vinyl polymer (I).

24-26. (Cancelled)